Report to the 61st Legislature

Use of Nongame Check-off Funds in the
Nongame Portion of FWP's Wildlife Program

December 2008

Prepared by

Montana Fish, Wildlife & Parks

PROJECT REPORT SUMMARY - NONGAME CHECK-OFF FUNDS
FY08 & FY09

Donations to the Nongame Wildlife Tax Check-off of Montana's 2007 income tax form are used to make progress toward three primary goals:

1. Keep common wildlife species common.
2. Reverse population declines of wildlife species deemed "of concern" in Montana (http://fwp.mt.gov/wildthings/concern/default.html) to prevent the need for future listing under the federal Endangered Species Act (ESA).
3. Foster awareness and appreciation of *all* Montana's wildlife, through outreach, technical assistance, and citizen science.

FY2008/FY2009 Projects	**FY08**	**FY09**
Common loon conservation efforts in northwest Montana	**$13,500**	**$8,000**

Montana has the largest breeding common loon population in the western continental United States, averaging 40-70 territorial pairs annually. Only 22 to 26 pairs nest successfully each year producing 30-49 chicks as counted in the mid-July Loon Day survey. The common loon is a Species of Concern in Montana due to small population size and sensitivity to activity during the nesting season. Active conservation efforts are deemed necessary to ensure that Montana's small nesting loon population is maintained in the long-term.

This cooperative project includes efforts to improve nesting success, monitor population trends, and educate water-based recreationists and wildlife viewers. There are three main components to this project: the Montana Loon Ranger Program, a research project to identify the habitat requirements and population dynamics of the nesting population, and a loon migration study. Cooperators include the Montana Loon Society, Plum Creek Timber Company, US Forest Service, U.S. Fish and Wildlife Service, Montana Dept of Natural Resources and Conservation, the Biodiversity Research Institute, Glacier National Park, Confederated Salish and Kootenai Tribes (CSKT), and private landowners.

The Loon Ranger Program is a cooperative educational effort. Each summer, three to four seasonal loon rangers cover lakes in the Clearwater, Thompson Chain of Lakes, Kalispell, and Kootenai areas. Loon rangers educate the recreating public about the needs of nesting loons, post temporary "quiet" zones around occupied loon nests, and work with public land managers, lakeside homeowners, and volunteers to monitor loon nesting success.

Color-banding of individual loons allows for the tracking of movements between lakes and estimating survival of chicks between fledging and recruitment into the population as breeding adults. Color banding efforts have resulted in the marking of 144 individual loons. Continued monitoring of color bands is needed to contribute to our knowledge of loon movements, fidelity and survival.

A 2-year graduate study through Montana State University to determine the habitat requirements and population characteristics of Montana's breeding loons was completed in 2006 (*Paugh, J.I. 2006. Common Loon Nesting Ecology in Montana. M.S. Thesis, Montana State Univ., Bozeman. 90pp).* A second 2-year graduate study, just completed through University of Montana looked at the relationships between disturbance (as measured by the number of houses, resorts, and

campgrounds in relation to lake size), habitat, intraspecific interactions, territory occupancy and reproduction (*Hammond, C. 2008. A Demographic and Landscape Analysis for Common Loons in Northwest Montana. M.S. Thesis, University of Montana, Missoula. 46pp*).

A migration study was initiated by the CSKT, to evaluate staging, migration, and wintering areas for both non-breeding and possibly breeding loons. This study consisted of implanting satellite transmitters into adult loons staging on lakes within the Flathead Indian Reservation. Migrating loons were then tracked between wintering areas in California and nesting areas in Canada, and important stopover lakes were identified. This project was part of a larger effort coordinated by the Montana Common Loon Working Group to better understand the breeding, wintering, migration routes and timing of common loon movements in northwest Montana. Through the use of four satellite-telemetry implants in loons captured on Flathead Lake, we identified two major southward migration routes. Several stopover lakes were identified along with wintering and summer areas (*Migration of Common Loons after Staging on Flathead Lake, Montana Confederated Salish and Kootenai Tribes, November 2008, 20 pp).*. This project confirmed the ecological importance of staging lakes for common loons, identified several other water bodies important to migratory loons, provided base information for the development of management guidelines for several lakes within the Flathead Indian Reservation, and contributed information for the updated Montana Common Loon Conservation Plan

The effort to complete the Montana Common Loon Conservation Plan was partially funded with Nongame Check-Off dollars in 2008. A final plan will be available in the spring of 2009.

Project Cooperators and Matching Funds: Project funds are matched with federal State Wildlife Grant dollars, non-federal partner contributions and in-kind donations. Project partners include Montana Loon Society, Plum Creek Timber Company, US Forest Service, Montana Dept of Natural Resources and Conservation; the Biodiversity Research Institute, Glacier National Park, Confederated Salish and Kootenai Tribes, and private landowners.

Black-backed woodpecker population genetics study: $2,500 $0
The black-backed woodpecker is a Montana Species of Concern that primarily inhabits recently burned forests. Populations of this and other woodpecker species increase dramatically in burned forests, then gradually decline as forest succession takes place. It is not known how far these woodpeckers will move to colonize burns. An understanding of what constitutes a viable population unit for this and other fire-dependent species is needed to inform management of burned forestlands. The primary goal of this University of Montana graduate research project is to describe the genetic population structure and dispersal dynamics of black-backed woodpeckers. A pilot field season in 2004 and full field seasons in 2005 and 2006 were completed. By 2006, blood samples had been collected from 147 black-backed woodpeckers and 33 hairy woodpeckers. In the winter of 2006-2007, genetic analysis of all of the current samples was completed. Final genetic analysis has been completed, and a draft report and Ph.D. dissertation should be finished by December 2008.

Project Cooperators and Matching Funds: Nongame Wildlife Check-Off contributions helped provide match for a SWG grant that funded this study. University of Montana supported a graduate student for this project and provided some matching funds. Glacier National Park and US Forest Service contributed in-kind personnel time to collect genetic samples.

University of Montana flammulated owl pilot study $0 $5,000
Flammulated owls are a Species of Concern in Montana where little is known about their abundance, distribution or productivity. The University of Montana is proposing an intense survey to monitor these in northwestern Montana. Flammulated owls were surveyed in the Missoula area as part of a 2008 pilot research study. Nine adult owls were detected, one confirmed nest site and one probable nest site was located during the survey efforts. Study plans for 2009 include continued assessment of owl breeding status and biology through nest location and productivity assessment. Nest site variables will be collected at several scales to assess forest structure and nest site characteristics that may provide guidance to land management planners.

Project Cooperators and Matching Funds: University of Montana and the Avian Science Center are project cooperators and the Owl Research Institute is providing funding and in-kind contributions.

Citizen science monitoring of flammulated owls $5,000 $2,500
The University of Montana's Avian Science Center organized citizen science monitoring of flammulated owls, in the areas of Missoula and Helena again in 2008. Little is known about the long term status and site fidelity of flammulated owls, a Species of Concern in Montana. This program uses citizen scientists to help gather such information. Volunteers "adopt" a survey route that they survey twice between the third week of May and the middle of July. At each point volunteers play a flammulated owl call using a broadcast caller and record any responses from owls. Survey routes are established in and around Missoula, in the Bitterroot valley and in and around Helena.

A total of 30 volunteers visited 18 survey transects in 2008. Fewer owls were detected compared to 2007 but a cold, wet spring and early summer may have affected owl activity. Volunteers in the Helena area detected a total of 15 owls across three transects and volunteers in the Missoula area detected six owls across three transects. Only 14% of transects surveyed in June produced one or more flammulated owl detections, while owls were detected along 50% of transects surveyed in July. In 2007, owls were detected on an approximately equal proportion of transects early and late in the season.

In the Missoula area, where seven routes were surveyed in both 2007 and 2008, there were substantial differences in the proportion of points that produced flammulated owl detections between the two years. In 2007 owls were detected on 27% of points while in 2008 owls were detected on only 8% of points. Of the 56 points surveyed in both years, owls were only detected in both 2007 and 2008 at two points, and there was only one point where an owl was detected in 2008 but not in 2007. However, there were 18 points at which owls were detected in 2007 and not detected in 2008. With a limited sample size and only two years of data it is impossible to know whether these differences between years reflect low site fidelity, variable survival or breeding patterns, or differences in ability to detect owls in the cold, wet conditions of 2008.

Project Cooperators and Matching Funds: The Avian Science Center provides support for this project and volunteers donate hundreds of in-kind hours of survey time.

Multi-species survey and inventory efforts **$3,000** **$0**

Montana FWP is moving toward multi-species inventory and monitoring surveys which are more cost-effective than traditional, single-species surveys. Although species "of concern" are often the intended targets of these inventories, information gathered on all species is used to refine management strategies, and contributes to information and species lists provided to the public via the on-line FWP Animal Field Guide and Visit a Park planner. The 2008-2010 cooperative Diversity Monitoring project was designed to develop methodologies to effectively gather information on the status and distribution of reptiles and bats in Montana. Completing baseline statewide assessments of the status and distribution of terrestrial reptiles and bats will provide information necessary to determine what steps need to be taken to conserve these species. This project will also test methodologies for simultaneous long-term monitoring of small terrestrial mammals and amphibians. This project will develop statewide sampling protocols for monitoring status and distribution of multiple species statewide while providing a framework for leveraging other funding to meet the common goal of multi-species conservation. The FY2008 segment of funding was used to: (1) design a sampling scheme for the diversity monitoring project; (2) develop initial field protocols and data forms for sampling amphibians, reptiles, small mammals, and bats and receive approval for animal care and use protocols; (3) hire and train field crews; and (4) initiate surveys.

Six field crew members were hired in FY2008 and received ten days of training for amphibian, reptile, bat, and small mammal identification, survey techniques, and preparation of museum voucher specimens. Reptiles and bats were targeted for a large portion of the survey effort because they are Tier 1 inventory species under the CFWCS. Surveys for reptiles dominated the field efforts in FY2008 with bats being more of the planned focus in FY2009.

Ninety-three quadrangle sites were surveyed in FY2008 and the beginning of FY2009. Acoustic bat recordings were collected at each of the 93 sites plus one incidental site for a total of 321 bat detector nights and 13,970 recordings. Bat-call recordings are being analyzed by Montana Natural Heritage Program staff. Mist nets were deployed for seven nights and resulted in three species records; hoary bat, big brown bat, and western small-footed myotis. Reptile searches were conducted at 76 quadrangle sites. Forty-one reptile species records were documented. Small mammal surveys were conducted at 29 quadrangle sites. Ninety-nine trap lines were deployed with a variety of trap types for a total of 11,054 trap nights. A total of 878 captures were recorded. Pre-confirmation results indicate that the average number of species per site was three and the average number of captures per site was 30. All species information will be entered into the Montana Natural Heritage databases.

Project Cooperators and Matching Funds: This project is a cooperative effort with Montana Natural Heritage Program and is funded with Heritage Program, Nongame Check Off and State Wildlife Grant dollars.

Native Species Specialist position in Billings **$13,600** **$0**

This FWP position serves the public in Eastern Montana through public education and wildlife conservation, with an emphasis on Species of Concern. In 2008 the native species specialist

presented numerous talks to the public, led field trips, and responded to requests for information from the public on Montana wildlife.

The Native Species Specialist chaired the Montana Prairie Dog Working Group, coordinated meetings of that group, and facilitated progress toward full implementation of the Conservation Plan for Black-tailed and White-tailed Prairie Dogs in Montana (January 2002). She also translocated white-tailed prairie dogs from a highway right-of-way in Carbon County onto BLM lands in 2007 and 2008.

The Native Species Specialist coordinated annual survey efforts for bald eagles and other raptors in the region. She also assisted with the planning and implementation of the multi-species diversity monitoring effort and in overall implementation of Montana's Comprehensive Strategy.

The Native Species Specialist serves as Montana's representative on the Central Flyway Nongame Migratory Bird Technical Committee. In collaboration with other states in the Flyway, she provided comments on changes in the federal falconry regulations, and bald eagle delisting. She assists with the Peregrine Falcon Working Group and participated in the planning and regulatory processes to allow nestling take by falconers in 2008.

The Native Species Specialist is the statewide coordinator for the North American Amphibian Monitoring Program that is a nation-wide effort to survey amphibians using volunteers. She held a meeting of the Montana Amphibian and Reptile Working Group, to share information and assist with the further development of amphibian and reptile conservation plans. She completed the "Snakes of Montana" poster project.

The Native Species Specialist has spent time addressing energy development issues in Eastern Montana including coal, oil and gas, coal bed methane, and wind development. She attended several trainings and workshops on energy development and wildlife impacts, and served on the technical advisory team for the Judith Gap Wind Energy Project. She prepared the draft Environmental Assessment for the Region 5 Circle R acquisition and will initiate species inventories on the property. This biologist served as the FWP representative on the multi-agency Exotic Species Classification Review Committee.

Project Cooperators and Matching Funds: These funds are matched with federal Pittman-Robertson funds at a 3:1 ratio.

Support publishing and distribution of educational materials $10,500 $5,000
Nongame Wildlife Check-Off donations help fund a variety of "Watchable Wildlife" projects that foster awareness and appreciation of our lesser-known wildlife species, and enhance public enjoyment of our common wildlife species. A "Snakes of Montana" poster was completed in 2008 in the style of the popular "Frogs and Toads of Montana" and "Salamanders of Montana" posters. The "Snakes of Montana" poster provides information on the identification, habitat, geographic distribution, and ecology of all 10 species of snakes found in Montana. Snakes have an important role in our ecosystem including free rodent control. Habitat loss and predators result in the loss of many snakes, but their largest obstacle may be fear and lack of understanding

by the public. These posters are designed to appeal to all ages, and are made available through FWP regional offices and interpretive centers throughout the state.

Wildlife viewing has become a popular past time in Montana bringing revenue to rural communities and fostering appreciation of nongame species. Freezout Lake Wildlife Management Area located in north central Montana provides quality year-round wildlife viewing opportunities. Freezout Lake is a major stop over point for migrating snow geese and tundra swans. The bird viewing guide and checklist for the management area was reprinted in 2008 to provide updated information on opportunities and encourage visits to the management area and the surrounding communities.

The "Birds of Montana" book is a complete guide to the over 400 avian species that inhabit Montana. The book will be a useful ornithological reference that increases awareness of conservation issues regarding birds and their habitats. Information on history, behavior and general biology will be included providing bird enthusiasts and conservationists a useful field and planning tool.

Project Cooperators and Matching Funds: Local Audubon chapters and volunteers donate data and time to the above projects.

Mountain Bluebird Trail **$2,500** **$0**

The goal of this project is to promote conservation of bluebirds and other cavity-nesting birds by providing nest box plans, materials and building instructions to youth groups, interested landowners, and other members of the public. Several years ago, FWP entered into a cooperative agreement with Mountain Bluebird Trails, Inc. (MBT), a local chapter of the North American Bluebird Society, to promote these activities.

There are currently 791 dues-paying members of the MBT including people throughout Montana and several other states. In 2008 nineteen members spent nearly 200 hours putting on 41 educational programs. A total of 1,445 nest boxes were built, including 1,000 by the Crossroads Correctional Center in Shelby.

Multiple sets of educational books and videos were distributed to libraries in Helena and Deer Lodge and production of the "Children's Bluebird Activity Book was completed." This can be accessed free of charge on the MBT website (www.mountainbluebirdtrails.com).

Project Cooperators and Matching Funds: These funds are matched approximately 2:1 by MBT through private donations for nest box materials, volunteer labor, and unreimbursed mileage to give educational talks and build and distribute bluebird houses.

Online Resources

FWP WEBSITE: http://www.fwp.mt.gov
Montana Natural Heritage Program Website: http://mtnhp.org
FWP and Natural Heritage Program Species of Concern List: http://fwp.mt.gov/wildthings/concern/default.html

Cover Photos

Sagebrush lizard, Western bluebird, deer mouse: Kristi Dubois